











PACIFIC BALLAST WATER TREATMENT PILOT PROJECT

GOAL

Minimize the risk of invasive species introductions through ballast water by forming a partnership to provide the resources needed for regional, national and international solutions.

WHAT'S NEEDED

- 1. Ballast Water Treatment Testing Facility
- 2. Technology for Testing
- 3. Research Team and Steering Committee
- 4. Vessels for Implementing On-Board Demonstration Projects

PROJECT DELIVERABLES

- 1. Develop protocols to evaluate the effectiveness of various treatment technologies through laboratory and on-board tests.
- 2. Recommended a standard for the discharge of treated ballast water.
- 3. Recommended a sampling / monitoring protocol to verify an adequate ballast water exchange.
- 4. Publish a report describing the project results for national distribution.

TIME TABLE

Phase I – April, 2000 to October, 2000 – Project Planning, Organization and Funding

Phase II - October, 2000 to June, 2001 - All project deliverables will be completed, except for the final report that should be completed within 6 months from the projects completion.













PROJECT MANAGEMENT

Project Manager – Scott S. Smith, Washington Department of Fish and Wildlife

Proposed Project Steering Committee – (List Provided)

Proposed Research Team

Allegra Cangelosi, Director, Ecosystems Projects Northeast-Midwest Institute Jeffery Cordell, University of Washington

Dr. Robert Hiltabrand, U. S Coast Guard Research and Development

Dr. Russell Herwig, University of Washington

Dr. Colin D. Levings, Fisheries and Oceans Canada, Science Branch

Dr. Terry Sutherland, Fisheries and Oceans Canada, Science Branch

(Navy Team Member?)

(USGS Team Member?)

(Marine Engineer?)

CURRENT PROJECT PARTNERS

U. S. Fish and Wildlife Service – Awarded \$126,000 to **Washington Department of Fish and Wildlife** for ANS management; \$30,000 will be used to fund ballast water programs. WDFW is also contributing staff for project coordination.

USGS Biological Resources – Agreed to allow their Marrowstone Marine Field Station for cooperative use as a ballast water treatment research facility.

- **U. S. Fish and Wildlife Service / NOAA / National Sea Grant Office** Awarded \$150,000 to the **University of Washington** to conduct ballast water research, including work at the Marrowstone Marine Field Station.
- U. S. Fish and Wildlife Service / NOAA / National Sea Grant Office Awarded \$150,000 to the California State Lands Commission to conduct a ballast water engineering study for a vessel and install a flow through treatment system for evaluation in the pilot project.

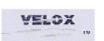
Velox Technologies Inc. – Velox has agreed to supply their ballast water treatment technology for research at the Marrowstone Marine Field Station. Velox has conducted substantial research on their technology and has supplied their testing protocoles for the research teams review. Their financial contribution to this cooperative effort will be substantial.

Hyde Marine, Inc. – Hyde Marine has agreed to supply their ballast water treatment technology for research at the Marrowstone Marine Field Station. Their technology has been tested in the Great Lakes and was recently installed on the Princess Cruise Lines, Regal Princess.













POTENTIAL NEW PARTNERS

U. S. Coast Guard

Department of the Navy

U. S. Environmental Protection Agency (Two Grant applications submitted)

U. S. Department of Agriculture (Grant application submitted)

Northeast-Midwest Institute

Puget Sound Steamship Operators Association

Columbia River Steamship Operators Association

Port of Seattle

Port of Portland

Port of Vancouver, B.C.

Regional Citizen's Advisory Council, Prince Williams Sound, Alaska

British Columbia Department of Fisheries and Oceans

California State Water Resources Board